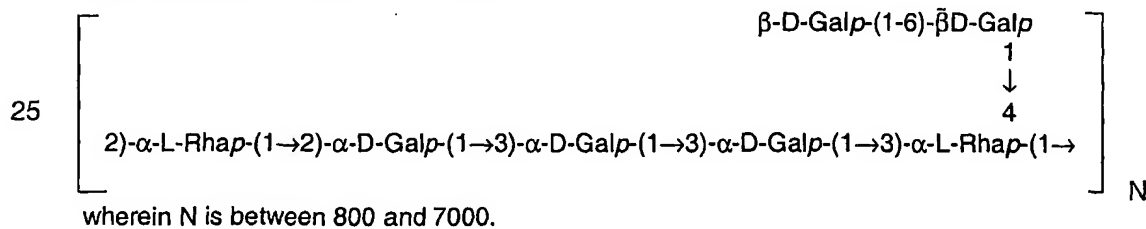


CLAIMS

1. *Streptococcus thermophilus* ST 111 strain as deposited on May 29, 2002 under the accession number LMG P-21524, encoding exopolysaccharide production.
2. A functional starter culture comprising an exopolysaccharide-producing lactic acid bacterial strain of claim 1.
3. A co-culture comprising an exopolysaccharide-producing lactic acid bacterial strain of claim 1.
4. Use of a functional starter culture or a co-culture according to claim 2 or 3 for the production of high-molecular-mass heteropolysaccharides of at least $2 \cdot 10^6$ Dalton during fermentation.
5. Use of a functional starter culture or a co-culture according to claim 2 or 3 for the fermentation of a food product.
6. A method for preparing an exopolysaccharide comprising culturing an exopolysaccharide-producing lactic acid bacterial strain in a medium comprising milk and lactalbumin hydrolysate.
7. A method according to claim 6, wherein said medium further comprises at least one additional mono-or disaccharide.
8. A method according to claim 6 or 7 characterized in that at least 60 % or 80 % by weight of said exopolysaccharide has a molecular mass of at least $2 \cdot 10^6$ Dalton.
9. A method according to any of claims 6 to 8 characterized in that said exopolysaccharide has the following structure:



10. A method according to any of claims 7 to 9 wherein said monosaccharide is chosen from glucose, galactose or fructose.

11. A method according to any of claims 7 to 9 wherein said disaccharide is sucrose.
12. A method according to any of claims 6 to 11 wherein a strain according to claim 1 is used.
13. A high-molecular-mass exopolysaccharide of at least $2 \cdot 10^6$ Dalton obtainable by the method of any of claims 6 to 12.
14. A method for improving the texture of a fermented product comprising adding at the start of or during the fermentation process, a culture of the *Streptococcus thermophilus* ST 111 strain of claim 1.
15. A method for improvement of water retention in a fermented product comprising adding at the start of or during the fermentation process, a culture of *Streptococcus thermophilus* ST 111 strain of claim 1.
16. A method for decreasing syneresis of a fermented product comprising adding at the start of or during the fermentation process, a culture of the *Streptococcus thermophilus* ST 111 strain of claim 1.
17. A method for improvement of water retention during the fermentation process comprising adding at the start of or during the fermentation process, a culture of the *Streptococcus thermophilus* ST 111 strain of claim 1.
18. A method for producing a dairy product comprising adding to the initial dairy product starter culture or adding during the fermentation process, a culture of the *Streptococcus thermophilus* ST 111 strain according to claim 1.
19. Use of a *Streptococcus thermophilus* ST 111 strain of claim 1 for the production of high-molecular-mass heteropolysaccharides of at least 10^6 Dalton in food fermentation processes.
20. Use of a functional starter culture or a co-culture according to claim 5 wherein said food product is a dairy product.
21. Use of a functional starter culture or a co-culture according to claim 20 wherein said dairy product is chosen from the group of milk products, fermented milk drinks, yoghurts, cheeses, sour cream, whipped toppings, quark and kefir.
22. A dairy product obtainable by any of the methods of claims 14 to 18.

23. A dairy product according to claim 22 which is a Mozzarella cheese.
24. A functional starter culture for the fermentation of a yoghurt comprising a culture of the *Streptococcus thermophilus* ST 111 strain of claim 1 and a culture of *Lactobacillus delbrueckii subsp. bulgaricus*.
- 5 25. Use of a high-molecular-mass exopolysaccharide of at least $2 \cdot 10^6$ according to claim 13 as an additive to a fermented or non-fermented food product.
26. Use of a high-molecular-mass exopolysaccharide of at least $2 \cdot 10^6$ according to claim 13 as an additive to a fermented or non-fermented food product for improving water retention of the food product.
- 10 27. Use of a high-molecular-mass exopolysaccharide of at least $2 \cdot 10^6$ according to 13 as an additive to a fermented or non-fermented food product for decreasing syneresis.
28. Use of an exopolysaccharide according to claim 13 as an additive to a fermented or non-fermented food product for improving the texture of said food product.
- 15 29. Use according to any of claims 25 to 28 wherein said food product is chosen from the group of milk products, fermented milk drinks, yoghurts, cheeses, soups, sour cream, whipped toppings, quark, kefir and sauces.
30. A functional starter culture comprising an exopolysaccharide-producing lactic acid bacterial strain for the production of high-molecular-mass heteropolysaccharides of at least $2 \cdot 10^6$ Dalton during fermentation.
- 20 31. A co-culture comprising an exopolysaccharide-producing lactic acid bacterial strain for the production of high-molecular-mass heteropolysaccharides of at least $2 \cdot 10^6$ Dalton during fermentation.